

CLAIMS

1. A chemical liquid supply apparatus comprising:
a pump discharging a liquid accommodated in a liquid tank;
a filter connected to said pump through a pump outlet flow path to which a pump discharge-side valve for opening/closing the flow path is provided;
a liquid discharge portion connected to said filter through a liquid discharge flow path to which a discharge valve for opening/closing the flow path is provided; and
a vacuum source communicating with said filter through an exhaust flow path to which a deaeration valve for opening/closing the flow path is provided.
2. The chemical liquid supply apparatus according to claim 1, further comprising:
a control means for closing said pump discharge-side valve and said discharge valve and opening said deaeration valve under such a state that said vacuum source is operated.
3. The chemical liquid supply apparatus according to claim 1 or 2, wherein said exhaust flow path is connected to a vent port formed at said filter, or a primary or secondary side of said filter.

4. A deaerating method of a chemical liquid supply apparatus having: a pump discharging a liquid accommodated in a liquid tank; a filter connected to said pump through a pump outlet flow path to which a pump discharge-side valve for opening/closing the flow path is provided; and a liquid discharge portion connected to said filter through a liquid discharge flow path to which a discharge valve for opening/closing the flow path is provided, and discharging the liquid in said liquid tank from said liquid discharge portion, the deaerating method comprising:

a deaerating process of, under such a state that a vacuum source connected to said filter through an exhaust flow path is operated, opening a deaeration valve provided to said exhaust flow path and closing said pump discharge-side valve and said discharge valve to exhaust a gas inside said filter to said exhaust flow path.

5. A deaerating method of a chemical liquid supply apparatus having: a pump discharging a liquid by communicating with the liquid accommodated in a liquid tank through a liquid introduction flow path to which a pump inlet-side valve for opening/closing the flow path is provided; a filter connected to said pump through a pump outlet flow path to which a pump discharge-side valve for opening/closing the flow path is provided; and a liquid dispense portion connected to said filter through a liquid discharge flow path to which a discharge valve for opening/closing the flow path is provided, and dispensing the liquid in said liquid tank from said liquid dispense portion, the deaerating method comprising the processes of:

performing a sucking operation of said pump under such a state that a deaeration valve provided to an exhaust flow

path communicating with an inlet side of said filter, said pump inlet-side valve, and said discharge valve are closed and that said pump discharge-side valve is opened; and

performing a discharging operation of said pump under such a state that said deaeration valve and said pump discharge-side valve are opened and that said pump inlet-side valve and said discharge valve are closed.